

WHAT IS CLAIMED IS:

1 1. A method of converting a mixture of short and
2 long tobacco particles into a rod-like filler, compris-
3 ing the steps of:

4 segregating the short particles of the mixture
5 from the long particles;

6 advancing an elongated stream of segregated long
7 particles along a predetermined path; and

8 admitting into the path short particles for hetero-
9 geneous distribution in the stream.

1 2. The method of claim 1, further comprising the
2 step of gathering short particles into batches prior to
3 said admitting step.

1 3. The method of claim 2, wherein said admitting
2 step includes introducing into the path a series of
3 spaced apart batches, and further comprising the steps
4 of confining the stream and the batches in a tubular
5 wrapper, and severing the wrapper and the stream between
6 successive batches.

1 4. The method of claim 3, wherein said advancing
2 step includes moving lengthwise a stream consisting of
3 long tobacco particles ~~and having two spaced apart~~
4 ~~marginal portions~~, said admitting step including applying
5 ~~to one side of the stream~~ batches of short particles ~~in~~
6 ~~spaced apart positions from at least one marginal portion~~
at least substantially centrally of said stream

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1 5. The method of claim 1, wherein said segregating
2 step includes sifting the mixture of short and long
3 particles.

1 6. The method of claim 1, further comprising the
2 step of gathering short particles into a mass prior to
3 said admitting step.

1 7. The method of claim 6, wherein said admitting
2 step includes monitoring the quantity of short particles
3 in the mass and introducing short particles from the mass
4 into the stream at a rate which is dependent upon the
5 quantity of short particles in the mass.

1 8. The method of claim 1, further comprising the
2 steps of gathering short particles into unequal batches
3 prior to said admitting step and thereupon equalizing
4 the batches, said admitting step including introducing
5 equalized batches of short particles into said path at
6 at least substantially identical intervals.

1 9. Apparatus for building a tobacco filler for
2 the making of rod-shaped smokers' products from a mixture
3 of short and long tobacco particles, comprising:

4 means for segregating short particles of the
5 mixture from the long particles;

6 means for advancing an elongated stream of
7 segregated long particles along a predetermined path;
8 and

9 means for admitting into longitudinally spaced-
10 apart portions of the elongated stream batches of
11 segregated short particles in a heterogeneous distribu-
12 tion.

1 10. The apparatus of claim 9, wherein said
2 advancing means includes an endless foraminous conveyor
3 and means for attracting segregated long particles and
4 batches of short particles to said conveyor.

1 11. The apparatus of claim 9, wherein said
2 admitting means includes a rotary suction drum having
3 a peripheral array of suction chambers for the delivery
4 of batches of short particles to a predetermined portion
5 of said path.

1 12. The apparatus of claim 11, further comprising
2 means for converting the stream into discrete fillers
3 of rod-shaped smokers' products having a predetermined
4 length, said suction chambers having a length, as seen
5 circumferentially of said drum and longitudinally of said
6 path, which is less than said predetermined length.

1 13. The apparatus of claim 11, wherein said path
2 has a width exceeding the width of a batch and said drum
3 is arranged to deliver batches of short particles at
4 least substantially centrally of said path.

1 14. The apparatus of claim 9, wherein said segregating means comprises at least one mobile sieve having
2 a mesh such that the sieve permits at least some short
3 particles to pass therethrough but intercepts at least
4 the majority of long particles.
5

1 15. The apparatus of claim 9, further comprising
2 means for collecting short particles upon segregation
3 from long particles.

1 16. The apparatus of claim 15, further comprising
2 means for monitoring the quantity of short particles in
3 said collecting means.

1 17. The apparatus of claim 9, wherein said
2 admitting means comprises a vibratory conveyor arranged
3 to transport segregated short particles from said
4 segregating means toward said path, and a suction
5 conveyor arranged to attract short particles from said
6 vibratory conveyor and to deliver the thus attracted
7 short particles to said path.

1 18. The apparatus of claim 9, further comprising
2 means for collecting short particles upon segregation
3 from long particles, said admitting means including a
4 conveyor for advancement of short particles to said path
5 and means for transferring metered quantities of short
6 particles from said collecting means to said conveyor.

1 19. The apparatus of claim 9, wherein said
2 admitting means includes means for trimming the batches
3 prior to entry into said path.

1 20. The apparatus of claim 9, wherein said
2 admitting means includes a first suction conveyor
3 rotatable about a horizontal axis and said advancing
4 means comprises a second suction conveyor disposed at
5 a level above said first suction conveyor and arranged
6 to accept short particles from said first conveyor.